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Chromatographic evaluation of gallic acid, catechin and quercetin in methanolic extracts of selected formulations of spices and herbs (Article)

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Abstract

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The main objective of this study was to quantify the probable antioxidants such as gallic acid (phenolic acid), catechin and quercetin (flavonoids) in the three different formulations of mixed spices and herbs, that is mixed herbs (F1), mixed spices (F2) and mixed spices & herbs (F3) predominantly formulated for general health and wellbeing. The aforementioned antioxidants could be highly beneficial for the maintenance of good health as they possess the capacity to scavenge the free radicals which sequentially prevents certain non-communicable diseases (NCDs) such as diabetes mellitus, cancer and atherosclerosis for which free radicals are considered one the major causes. The formulation F2 comprising of mixed spices showed highest contents of gallic acid (86.03 µg/ml), catechin (339.40 µg/ml) and quercetin (394.59 µg/ml) thus highlighting its nutritional potential against various NCDs. The findings of this study depict that the daily supplementation of spices and herbs particularly that of mixed spices could be highly beneficial for the maintenance of good health as they are a rich source of phenolic antioxidants. © Mattioli 1885.

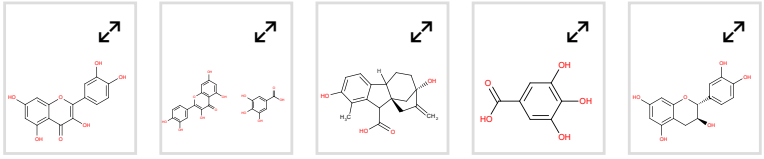
SciVal Topic Prominence

Topic: Rosmarinus | Acids | Rosemary extracts

Prominence percentile: 96.203

Chemistry database information

Substances



Author keywords

Catechins | Gallic acid | Herbs | High performance liquid chromatography (HPLC) | Quercetin | Spices

Indexed keywords

EMTREE drug terms: catechin | gallic acid | methanol | quercetin

EMTREE medical terms: antioxidant assay | Article | herb | spice

Chemicals and CAS Registry Numbers:

catechin, 13392-26-2, 154-23-4; gallic acid, 149-91-7; methanol, 67-56-1; quercetin, 117-39-5

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References (36)

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1 Prentice, A.M.
The emerging epidemic of obesity in developing countries (Open Access)

(2006) *International Journal of Epidemiology*, 35 (1), pp. 93-99. Cited 700 times.
doi: 10.1093/ije/dyi272

View at Publisher

2 Habib, S.H., Saha, S.
Burden of non-communicable disease: Global overview

(2010) *Diabetes and Metabolic Syndrome: Clinical Research and Reviews*, 4 (1), pp. 41-47. Cited 53 times.
http://www.journals.elsevier.com/diabetes-and-metabolic-syndrome-clinical-research-and-reviews/
doi: 10.1016/j.dsx.2008.04.005

View at Publisher

3 Milic, M., Frustaci, A., Del Bufalo, A., Sánchez-Alarcón, J., Valencia-Quintana, R., Russo, P., Bonassi, S.
DNA damage in non-communicable diseases: A clinical and epidemiological perspective

(2015) *Mutation Research - Fundamental and Molecular Mechanisms of Mutagenesis*, 776, pp. 118-127. Cited 28 times.
http://www.journals.elsevier.com/mutation-research-fundamental-and-molecular-mechanisms-of-mutagenesis/
doi: 10.1016/j.mrfmmm.2014.11.009

View at Publisher

4 Rahman, K.
Studies on free radicals, antioxidants, and co-factors.

(2007) *Clinical interventions in aging*, 2 (2), pp. 219-236. Cited 643 times.